

DETAILED ACTION

1. This Office Action is in regard to the Preliminary Amendment filed on 5/26/2006.
Claims 1-19 are pending.

Information Disclosure Statement

2. The Information Disclosure Statement (IDS) submitted on 5/26/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Oath/Declaration

3. The Oath/Declaration filed on 11/09/2006 is acceptable.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13 and 19 recite the limitation "the codeword" in line 7 of claim 13 and line 10 of claim 16. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 13-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-9, 13-19 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another

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statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Allowable Subject Matter

7. Claims 10-12 are allowed.

Claim 10 is allowable because none of the cited references either singular or in combination discloses “a decoding success/failure checking unit generating an $m \times 1$ resultant matrix by performing an XOR operation and a modular 2 operation with respect to an $m \times n$ LDPC matrix and an $n \times 1$ code word vector and determining whether a decoding of the code word vector succeeded based on the resultant matrix; an error location detector searching the LDPC matrix for a same column vector as the resultant matrix and, if the same column vector exists in the LDPC matrix, detecting an error location in the code word vector by detecting a column number of the same column vector.”

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman, can be reached at (571) 272-3644.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fritz Alphonse/

Examiner, Art Unit 2112